



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0621; Directorate Identifier 2013-NM-201-AD]

RIN 2120-AA64

Airworthiness Directives; BAE Systems (Operations) Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all BAE Systems (Operations) Limited Model BAe 146 series airplanes, and Model Avro 146-RJ series airplanes. This proposed AD was prompted by a report of a pressurization problem on an airplane during climb-out; a subsequent investigation showed a crack in the fuselage skin. This proposed AD would require repetitive external eddy current inspections on the aft skin lap joints of the rear fuselage for cracking, corrosion, and other defects, and repair if necessary. We are proposing this AD to detect and correct cracking, corrosion, and other defects, which could affect the structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by **[INSERT DATE 45**

DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RAPublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0621; or in person at the Docket

Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include “Docket No. FAA-2014-0621; Directorate Identifier 2013-NM-201-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2013-0207, dated September 9, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all BAE Systems (Operations) Limited Model BAe 146 series airplanes, and Model Avro 146-RJ series airplanes. The MCAI states:

In 2012, a pressurisation problem occurred on an AVRO 146-RJ100 aeroplane during climb-out. Subsequent investigation results identified a 42.87 inch (1089 mm) long crack in the fuselage skin in the rear fuselage drum, near the rear passenger door. The skin crack had initiated in the step of the skin land adjacent to a lap joint. In addition to the skin crack, cracks were found in Frames 41X and 42.

This condition, if not detected and corrected, could lead to degradation of the structural integrity of the aeroplane.

Prompted by this finding, BAE Systems (Operations) Ltd issued Inspection Service Bulletin (ISB) 53-239, providing instructions to inspect the internal area of the rear fuselage drum for cracks, corrosion and any other defects and EASA issued AD 2012-0178

[http://ad.easa.europa.eu/blob/easa_ad_2012_0178_Superseded.pdf/AD_2012-0178_1] which required accomplishment of a one-time inspection of the affected fuselage area and, depending on findings, repair of cracked structural items. Following the issuance of that [EASA] AD, some new information on additional damage found on the aeroplane that had the pressurisation problem resulted in a further review of the cracking event. This review concluded that the event was more serious than previously considered and that the compliance time must be reduced in order to mitigate the risk of cracking on other aeroplanes. As a result, EASA issued AD 2012-0184 [http://ad.easa.europa.eu/blob/easa_ad_2012_0184_superseded.pdf/AD_2012-0184_1]

ded.pdf/AD_2012-0184_1] which superseded EASA AD 2012-0178.

After analysing the responses to EASA AD 2012-0184, which covered the initial inspection of stringer 30, left hand (LH) and right hand (RH), BAE Systems (Operations) Ltd also assessed the similar design features at other skin lands in the rear fuselage drum, namely at stringer 2 right and stringers 11 and 18, LH and RH. As a result, they determined that inspections at the other stringers would be required and also that repeat inspections of all these stringers would be necessary. Consequently, BAE Systems (Operations) Ltd ISB.53-239 Revision 1 and 2 were issued to include these new inspections.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2012-0184, which is superseded, and requires accomplishment of additional inspections of the affected fuselage area, including repetitive inspections, and depending on findings, repair of cracked structural items.

The required actions include repetitive external eddy current inspections on the aft skin lap joints of the rear fuselage for cracking, corrosion, and other defects, and repair if necessary. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0621.

Relevant Service Information

BAE Systems (Operations) Limited has issued Inspection Service Bulletin 53-239, Revision 2, dated July 15, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with

the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between this Proposed AD and the MCAI or Service Information

EASA AD 2013-0207, dated September 9, 2013, specifies that, if any cracking, corrosion, or any other irregularity is detected during any inspection required by paragraph (1) of the EASA AD, owners/operators must contact BAE Systems (Operations) Limited before further flight for approved repair instructions, and within the compliance time specified in those instructions, must accomplish the repair accordingly. This AD requires that if any cracking, corrosion, or any other irregularity is found during any inspection, owners/operators must repair before further flight using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or BAE Systems (Operations) Limited's EASA Design Organization Approval (DOA). This difference has been coordinated with EASA.

“Contacting the Manufacturer” Paragraph in this Proposed AD

Since late 2006, we have included a standard paragraph titled “Airworthy Product” in all MCAI ADs in which the FAA develops an AD based on a foreign authority's AD.

The MCAI or referenced service information in an FAA AD often directs the owner/operator to contact the manufacturer for corrective actions, such as a repair. Briefly, the Airworthy Product paragraph allowed owners/operators to use corrective

actions provided by the manufacturer if those actions were FAA-approved. In addition, the paragraph stated that any actions approved by the State of Design Authority (or its delegated agent) are considered to be FAA-approved.

In an NPRM having Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013), we proposed to prevent the use of repairs that were not specifically developed to correct the unsafe condition, by requiring that the repair approval provided by the State of Design Authority or its delegated agent specifically refer to the FAA AD. This change was intended to clarify the method of compliance and to provide operators with better visibility of repairs that are specifically developed and approved to correct the unsafe condition. In addition, we proposed to change the phrase “its delegated agent” to include a design approval holder (DAH) with State of Design Authority design organization approval (DOA), as applicable, to refer to a DAH authorized to approve required repairs for the proposed AD.

One commenter to the NPRM having Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013) stated the following: “The proposed wording, being specific to repairs, eliminates the interpretation that Airbus messages are acceptable for approving minor deviations (corrective actions) needed during accomplishment of an AD mandated Airbus service bulletin.”

This comment has made the FAA aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not

approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the identified unsafe condition and does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed the paragraph and retitled it “Contacting the Manufacturer.” This paragraph now clarifies that for any requirement in this proposed AD to obtain corrective actions from a manufacturer, the actions must be accomplished using a method approved by the FAA, the European Aviation Safety Agency (EASA), or BAE Systems (Operations) Limited’s EASA DOA.

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DOA, the approval must include the DOA-authorized signature. The DOA signature indicates that the data and information contained in the document are EASA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DOA-authorized signature approval are not EASA-approved unless EASA directly approves the manufacturer’s message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such

flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by identifying those actions in manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

We also have decided not to include a generic reference to either the "delegated agent" or "design approval holder (DAH) with State of Design Authority design organization approval," but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH throughout this proposed AD.

Costs of Compliance

We estimate that this proposed AD affects 1 airplane of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$680 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This proposed regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

BAE Systems (Operations) Limited: Docket No. FAA-2014-0621;

Directorate Identifier 2013-NM-201-AD.

(a) Comments Due Date

We must receive comments by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all BAE Systems (Operations) Limited Model BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes; certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by a report of a pressurization problem on an airplane during climb-out; a subsequent investigation showed a crack in the fuselage skin. We are issuing this AD to detect and correct cracking, corrosion, and other defects, which could affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Inspections

(1) Within the compliance times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD, as applicable: Do an external eddy current inspection on the aft skin lap joints of the rear fuselage for cracking, corrosion, and other defects (i.e. surface damage and spot displacement), in accordance with paragraph 2.C. of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin 53-239, Revision 2, dated July 15, 2013.

(i) For any airplane which has accumulated 9,000 flight cycles or more since the airplane's first flight as of the effective date of this AD: Do the inspection within 1,000 flight cycles or 6 months after of the effective date of this AD, whichever occurs first.

(ii) For any airplane which has accumulated less than 9,000 flight cycles since the airplane's first flight as the effective date of this AD: Do the inspection before accumulating 10,000 flight cycles since the airplane's first flight.

(2) Repeat the inspection required by paragraph (g)(1) of this AD thereafter at intervals not to exceed the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD, as applicable to the airplane's modification status.

(i) For Model BAe 146 series airplanes and Model Avro 146-RJ series airplanes post modification HCM50070E, or post modification HCM50070F, or post modification HCM50259A, repeat the inspection at intervals not to exceed 4,000 flight cycles.

(ii) For Model BAe 146 series airplanes and Model Avro 146-RJ series airplanes pre-modification HCM50070E, and pre-modification HCM50070F, and pre-modification HCM50259A, repeat the inspection at intervals not to exceed 7,500 flight cycles.

(h) Corrective Action

If any cracking, corrosion, or other defect is found during any inspection required by this AD: Before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or BAE Systems (Operations) Limited's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the

DOA-authorized signature. Accomplishment of the repair does not constitute a terminating action for the inspections required by paragraph (g) of this AD.

(i) Credit for Previous Actions

(1) This paragraph provides credit for the initial inspection and corrective action on stringer 30, left hand (LH) and right hand (RH), as required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using BAE Systems (Operations) Limited Inspection Service Bulletin 53-239, dated June 13, 2012, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the initial inspection and corrective action, as required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using BAE Systems (Operations) Limited Inspection Service Bulletin 53-239, Revision 1, dated June 18, 2013, which is not incorporated by reference in this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind

Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425- 227-1149.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or BAE Systems (Operations) Limited's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2013-0207, dated September 9, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0621.

(2) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RAPublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 25, 2014.

Michael Kaszycki,
*Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.*

BILLING CODE 4910-13-P

[FR Doc. 2014-20943 Filed 09/02/2014 at 8:45 am; Publication Date: 09/03/2014]